

ABHILASH BISWAS

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

M.S. in Public Policy and Data Analytics (GPA: 4.00/4.00)

Pittsburgh, PA

Aug 2021-May 2023

- Coursework: Causal inference, Machine learning, optimization, AI ethics and fairness, public policy

St Stephen's College, University of Delhi

B.A. Economics

New Delhi, India

Jul 2014-May 2017

- Graduated with rank 1 out of 100 students in the Department of Economics

PROFESSIONAL EXPERIENCE

Dick's Sporting Goods

Data Scientist II

Pittsburgh (Remote)

May 2023-Present

- Engineered a generalized time series Forecasting Engine that significantly reduces the start-up and experimentation cost to build ML models for a large variety of forecasting problems
- Developed an ensemble of ML models that reduce product assortment optimization costs by ~USD 7.5 million

eScience Institute, University of Washington

Data Science for Social Good summer fellow

Seattle, WA (Remote)

Jun 2022-Aug 2022

- Developed a [python library](#) that applies computer vision techniques to enable astronomers to detect and quantify bright satellite streaks in telescope images
- The library replaces manual labelling of telescope images, **saving 20 hours per 1000 images**

IDinsight (website [here](#))

Manager (10 months), Senior Associate (1 year), Associate (2 years)

New Delhi, India

Aug 2017-May 2021

- Created a new Strategic Business Unit, [Data on Demand \(DoD\)](#), that leverages technological innovation to make high quality data-driven evidence accessible to policymakers
- Led the product team to develop scalable software systems that helped the organization manage field data collection across 30,000 households in 20 Indian states simultaneously
- Led [innovations](#) to develop remote data collection methods. Deployed it to provide [real time data](#) from 20 states to the central government of India, World Bank, and the Gates Foundation during COVID-19 lockdown

PROJECTS

Helping Johnson County predict people in need of proactive mental health services. Presentation [here](#).

- Implemented an end-to-end machine learning pipeline to predict adverse mental health events in the near future, to prioritize people for service delivery. Pipeline included analytical formulation, data processing from multiple county datasets, supervised models, temporal validation, bias/fairness audit and field trial design

Predicting police violence in Chicago. Presentation [here](#). [GitHub repo](#).

- Created classification and unsupervised models using Census, citizen reported data and Chicago city's open data to predict chances of police violence at a Census tract level in Chicago.

Optimizing placement of a new grocery store in Pittsburgh to minimize food insecurity. [GitHub repo](#).

- Applied geospatial analysis and optimization to find SNAP store locations that can maximize food access.

HealthAccess – a proof of concept app to find nearest hospitals. [GitHub repo](#).

- Deployed python-based web scraping, API extraction and text pattern matching to provide curated information on nearby healthcare facilities to users seeking medical help.

TECHNICAL SKILLS

Programming: Python, SQL, R, STATA, SurveyCTO, AWS, GCP, Databricks

Tools/packages: PyTorch, GluonTS, Scikit-Learn, PySpark, OpenCV, Scikit-Image, Spacy, NLTK, R Shiny

Statistics and ML: Supervised and unsupervised learning, Causal Inference, RCT, A/B testing